

With C. J. Myers' compliments

TWENTY-EIGHTH

Annual Report.

OF THE

Medical Officer of Health,

TO THE PUBLIC HEALTH ACTS COMMITTEE

OF THE

LOUTH

Rural District Council

FOR THE YEAR 1900,

BY

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District and Workhouse, of the Louth Union.

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Dear Sir

I shall have pleasure
in complying with your wish
and sending a copy of my
Annual Report as soon as it
is published.

Yours truly
Charles J. Myers
M.O.N. South Rural
District Council

LOUTH
Rural Sanitary District,
TWENTY-EIGHTH
Annual Medical Report.

*To the Chairman and Members of the Louth Rural
Sanitary Committee.*

GENTLEMEN,

It is gratifying to find, that the reduction in the death-rate last year, has been maintained : the number of deaths being 273, or one less than last year, and the average per thousand 13·2. 17 persons died of zymotic disease, or one more than last year, being at the rate of 0·8 per thousand. 53 infants died before they were 12 months old, being in the ratio of nearly 117 per thousand births, and 13 children died at one year, and under five. The number of births is steadily declining ; last year it was 453, against an average of 511, the previous 10 years, and 95 less than in 1890. There were 231 males, and 222 females, born, making a total of 453, or in the ratio of 21·9 per thousand.

For further particulars of the births and deaths, in the whole district, and in each sub-registration district, see tables I, II, and IV, in the appendix.

EPIDEMIC INFECTIOUS DISEASES.

When a case of infectious disease is notified, steps are at once taken to find out the cause, and remove it : instructions are given as to isolation, disinfection, etc., and disinfectants supplied. When the Medical attendant reports that the patient has sufficiently recovered, the house is disinfected by the Inspector. When necessary, the day school is closed, and before re-opening is disinfected ; there is no isolation hospital, as the houses are so scattered, that it is thought unnecessary. There were only 25 notifications, against 56 the previous year, this is the smallest number

within recent years. They were as follows, viz. :

Scarlet Fever or Scarlatina	...	...	...	7
Typhoid or Enteric Fever	...	...	...	2
Diphtheria	...	...	...	6
Puerperal Fever	...	...	...	1
Erysipelas	...	...	...	9
				<hr/>
				25
				<hr/>

For these cases, arranged according to diseases, ages, and districts, see table III in the appendix. The deaths from zymotic disease were as follows, viz. :

Measles	...	...	...	...	7
Scarlet Fever	...	...	...	...	2
Diphtheria	...	...	...	...	1
Enteric Fever	...	...	...	...	1
Diarrhœa	...	...	...	...	5
Erysipelas	...	...	...	...	1
					<hr/>
					17
					<hr/>

MEASLES.—This disease, which was epidemic in North and South Elkington, and Welton, at the close of last year, continued so in different parts of the district up to the beginning of August, when it died out. 13 of the National Schools had to be closed for a time, and seven children died, five of the cases however were complicated with other diseases.

SCARLET FEVER.—Seven cases have been notified, in four houses. The first occurred at the end of May, at Hainton Beck farm, the disease being possibly imported from Lincoln : two of the other children in the house became affected, and two cases proved fatal, from cerebral congestion setting in. Two mild cases occurred in one house at Ludney, in the parish of Grainthorpe, the origin could not be traced. A mild case was removed to Swaby, from Louth, in August. Another mild case occurred at Walmsgate, at the end of November, for which no cause could be found. Strict precautions were taken in all these cases, and were successful in limiting the disease to the house where it first appeared.

DIPHTHERIA.—Six cases have occurred, one of which proved fatal. A young woman living in service at Witheru, had a mild attack in February, its origin was obscure, the house where she was living being in excellent sanitary condition. The second, also a mild case, occurred at Stewton, the cause of the attack could not be found. The next two

cases were in one house at Strubby, one was fatal, it is possible the disease was imported from Lincoln. A young man at Kelstern, was taken seriously ill on September 29th, with Diphtheria, the cause could not be discovered : proper precautions being taken, as to isolation and nursing, the disease did not spread, and he recovered. The last case occurred at South Willingham, at the end of October, and recovered, nothing insanitary could be found, and the water was good.

ENTERIC FEVER.—There have only been two cases, one at North Thoresby, the other at Tetney. The Thoresby case was that of a little girl, living under very good sanitary conditions, and drinking excellent water, she made a good recovery. The case at Tetney, was in a young man of enfeebled health, who succumbed to the disease. The premises were in good sanitary order, and on analysis, the drinking water proved to be exceptionally good.

PUERPERAL FEVER.—A woman died at South Somercotes of this disease, it was probably autogenetic, and the precautions taken to prevent its spread were successful.

ERYSIPELAS.—Nine cases were reported, all of which recovered, except a little child of two years, who died of it at Maltby-le-Marsh. No sanitary faults could be detected on the premises in these cases.

INFLUENZA.—This disease appeared, more or less, all over the district, in January, and February, necessitating the closing of both Ludborough and Binbrook schools, it lingered longer in the Binbrook sub-district, and altogether caused 12 deaths, of which nine occurred in persons of 65, and upwards.

CHICKEN POX.—Became epidemic in Saltfleetby, in July, necessitating the closing of the school for a fortnight.

MUMPS.—An epidemic occurred in Maidenwell, causing the closure of the school, from July 18th to August 6th.

SANITARY WORK.

I propose now to summarize the other sanitary work done during the year. Both the Inspector and I, have made systematic inspections of the district. The following is the Inspector's report :—

118 notices have been served for the abatement of nuisances.

44 houses have been cleansed and disinfected.

14 public schools ditto ditto

28 defective drains to houses have been repaired, and put into good order.

- 15 foul ditches and cesspools have been cleaned out.
- 5 old and dilapidated privies have been repaired, and put into sanitary order.
- 5 new privies have been built.
- 6 wells have been cleaned out.
- 1 house has been closed.
- 26 cowsheds, dairies, and milkshops, have been several times inspected during the year.

WATER SUPPLY.

There are no waterworks in the district, none being necessary. The supply is chiefly by pumps, from artesian wells, and overflowing springs, but there are a few surface wells. Each house, or set of houses, is supplied according to circumstances; some of the wold villages having their water pumped up by rams. The water is generally good. Where it is impure in any way, suitable action is taken by your orders, to rectify it. Care is also taken by you, that as respects each house, wholesome drinking water is obtainable at a reasonable distance. I have analyzed 49 samples of drinking water, six of which proved bad, and eleven impure in a minor degree. Six wells were cleaned out.

DRAINAGE.

The district is wholly rural, part being inland, and part maritime. About half of it is flat, and called "marsh," although through being properly drained, it has ceased to be marshy, the other half forms part of the wolds, and so is very hilly. The houses are very scattered, there being 88 parishes, with 4673 houses, spread over 140,000 acres, consequently very few systems of drainage are required; the houses being drained according to their position and surroundings, and the requirements of each individual case. A systematic inspection is carried on throughout the year, to see that no nuisance arises, the Inspector visiting from 20 to 40 houses daily. Four systems of drainage are worked by your authority, namely: those in the parishes of North Somercotes, Ludford Parva, Aby, and Holton-le-Clay. All have acted satisfactorily during the year. The coke breeze at Ludford has been a success. The Spilsby authority has taken care that no nuisance should arise at Trusthorpe. In May I was obliged to call your attention to a nuisance caused by the condition of the Boncroft drain, running from the churchyard at North Thoresby, to the Old Fleet, action was taken by you resulting in a complete removal of the nuisance. The sewage, house refuse, and excrement, are all disposed of by being mixed with the land, either in the gardens or fields. Generally cesspools are made, the overflow going

into the nearest dike, these cesspools when full, are cleaned out, and the sludge mixed with the land. Should the overflow from the cesspool make the dike offensive, it is cleaned out, and the offensive matter mixed with the land. If there is no cesspool the refuse is put on to the garden. There is no scavenging. All the notices for the abatement of nuisances have been effectual, except those which have not had time to mature.

HOUSE ACCOMMODATION.

There has been no overcrowding, and the accommodation has been generally good : the average number of persons residing in each house is between four and five. There were two houses at Ludney, and one at Holton-le-Clay, which were not rainproof. A house also at Holton-le-Clay had insufficient light, and ventilation, these defects were all remedied by your orders. I reported a house at Tathwell, as being uninhabitable from dilapidation, this house you condemned, and it will not again be occupied. Ten new houses have been built, including a farm house, all have the necessary drainage accommodation, or are having it supplied.

OFFENSIVE TRADES.

The manure works at North Thoresby, Binbrook, Marshchapel, and Ludford Parva, have worked satisfactorily. Mr. Hewson is removing his works to another part of North Thoresby. Mr. Mackrill, the Inspector, and I, inspected the site, and found it a much better one than the one he occupies at present.

DAIRIES, COWSHEDS, & MILKSHOPS.

These which number 26, have been several times inspected during the year, and found in good sanitary condition. None of the cows have had tuberculous udders.

PREVENTION OF CONSUMPTION.—The dwellings of all who have died of Consumption, have been disinfected, and the Inspector has explained to the relatives why this is necessary, and has given them a copy of the leaflet, prepared by me, pointing out the precautions necessary to prevent the spread of the disease.

SCHOOLS.

The following 17 schools have had to be temporarily closed during the year, because of epidemics of infectious disease, mostly Measles, viz. : Elkington, Marshchapel, Tetney, Carlton, Gayton-le-Marsh, Tathwell, Cockerington, Covenham, Fulstow, Yarborough, Strubby, Kelstern, Ludborough, North Coates, Binbrook, Saltfleetby, and Maidenwell. I found one school was not properly ventilated, and acting on my advice, the managers remedied this.

The most notable sanitary events of the year, have been the outbreaks of Plague, at Glasgow, and Hull, caused by importation of the disease from abroad, and the occurrence of arsenical poisoning, on a large scale, from drinking beer, where in the brewing, glucose had been used contaminated with arsenic. The precautions taken by the Sanitary authorities prevented the Plague from spreading to any great extent, and samples of beer have been analyzed in this district by the Police authorities.

Space will not permit me to review in detail, the immense amount of good done in the 19th century by sanitary work, but I cannot resist the temptation, of bringing the following facts to your notice. The death rate for England and Wales, which in the years 1851-60 averaged 22·2 per thousand, in the years 1894, 5, and 6 only averaged 17·4. The mortality of London, at the beginning of the century was 50 per thousand, and at the end averaged a little over 20. It is a remarkable fact, that the lowering of the death rates can be distinctly traced to the operation of the Public Health Acts. The average yearly mortality from Small Pox, per million persons living, in the 18th century, according to the British Medical Journal, was in the large cities over 3,000, and in the whole country over 2,000, and in some years was 5,000 or 6,000 per million. For the ten years ending 1894, *it was only 26*; and I cannot but think that if Vaccination was thoroughly practised throughout the world the disease would disappear. Typhus Fever, Ague, Intermittent Fever, Scurvy, and Devonshire Colic, have almost disappeared. The mortality from Consumption the last 50 years has been reduced more than one-half, and in some places the reduction can be distinctly traced to improved drainage. The average annual death rate from Zymotic disease, was in 1861-70, 4·1, in 1881-1885, it had fallen to 2·4: that from fever also dropped from 0·89 to 0·27. To my mind, these facts give us great encouragement, to persevere steadily in our work.

In conclusion, I wish to thank the Chairman, and Members of the Committee, for their kindness, and courtesy to me, during the past year.

CHARLES J. MYERS, M.R.C.S. & L.S.A.,

MEDICAL OFFICER OF HEALTH.

APPENDIX.

TABLE I. LOUTH RURAL DISTRICT (for whole district).

YEAR.	Population estimated to middle of each year.	Births.		Deaths under One Year of Age.		Deaths at all Ages. Total.		Deaths in Public Institutions.	Deaths of non-residents registered in district.	Deaths of residents registered beyond district.	Deaths at all Ages. Nett.	
		Number.	Rate.*	Number.	Rate per 1,000 births registered	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7		9	10	11	12	13
1890.	23,145	548	23·6	68	2·9	326	14					
1891.	21,367	532	24·9	57	2·6	354	16·5					
1892.	21,367	557	26	56	2·6	288	13·3					
1893.	21,367	510	23·9	53	2·4	285	13·3					
1894.	21,367	450	20·1	54	2·5	256	11·2					
1895.	21,367	546	25·5	77	3·6	329	15·5					
1896.	21,367	511	23·9	49	2·2	260	12·1					
1897.	20,639	520	25·2	62	3·0	281	13·6					
1898.	20,639	482	23·3	72	3·4	293	14·1					
1899.	20,639	458	22·1	48	2·3	274	13·2					
Averages for years 1890-1899.	21,326	511	23·9	59·6	2·7	294·6	13·6					
1900.	20,639	453	21·9	53	2·5	273	13·2					

* Rates calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

The area of District in acres (exclusive of area covered by water)—1890 to 1896 inclusive, 144,826 acres; 1897 to 1900 inclusive, 142,263 acres. Total population at all ages, 21,367*; Number of inhabited houses, 4,846*; Average number of persons per house, 4·4. At Census of 1891.

* Since 1896 Mablethorpe has been taken from the district, so that now the total population, at all ages is 20,639; number of inhabited houses 4,673; average number of persons per house 4·4.

TABLE II. LOUTH RURAL DISTRICT.

YEA R.	BINBROOK.				LOUTH (Rural).				SALT FLEET.				TETNEY.				WITHERN.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1890 ..	4150	103	63	11	4072	89	37	13	5223	120	83	13	5203	109	79	19	4397	127	64	12
1891 ..	3909	97	76	10	3918	109	48	10	4822	117	74	10	4592	116	74	15	4126	93	82	13
1892 ..	3909	113	48	10	3918	95	36	10	4822	131	79	16	4592	128	81	13	4126	90	44	7
1893 ..	3909	84	52	..	3918	105	42	..	4822	109	89	..	4592	107	65	..	4126	105	37	..
1894 ..	3909	85	44	..	3918	90	41	..	4822	111	58	..	4592	113	66	..	4126	51	47	..
1895 ..	3909	104	44	..	3918	95	54	..	4822	113	80	..	4592	117	77	..	4126	104	78	..
1896 ..	3909	100	47	..	3918	87	50	..	4822	112	39	..	4592	107	66	..	4126	105	58	..
1897 ..	3909	99	40	10	3918	98	47	10	4822	121	73	17	4592	130	81	14	3398	72	47	11
1898 ..	3909	96	62	21	3918	97	39	14	4822	119	79	12	4592	97	73	19	3398	73	40	6
1899 ..	3909	90	46	6	3918	65	51	10	4822	112	68	11	4592	132	70	17	3398	59	39	4
Averages of Years 1890 to 1899.	3923	97	52	..	3934	93	44	..	4872	116	72	..	4653	115	73	..	3934	87	53	..
1900 ..	3909	77	51	8	3918	101	43	14	4822	112	74	12	4592	89	61	10	3398	74	44	8

NOTES.—(a) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this table need not be filled up.

(b) Deaths of residents occurring beyond the district are to be included in sub-column *c* of this table, and those of non-residents registered in the district excluded.

(c) Deaths of residents occurring in public institutions are to be allotted to the respective localities, according to addresses of the deceased.

TABLE III.

Cases of Infectious Disease notified during the Year 1900. **Louth Rural District.**

NOTIFIABLE DISEASE.	Cases notified in Whole District.						Total Cases notified in each Locality.				
	At all Ages.	At Ages—Years.					1 Binbrook	2 Louth (rural).	3 Saltfleet.	4 Tetney.	5 Withern
		Under 1.	1 to 5.	5 to 15	15 to 25.	25 to 65.					
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	6	..	..	2	3	1	2	1	1	..	2
Membranous croup	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	9	1	1	1	..	6	4	1	1	1	2
Scarlet fever ..	7	..	1	4	2	..	3	..	..	2	2
Typhus fever ..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever ..	2	..	..	1	..	1	..	..	..	2	..
Relapsing fever ..	..	..	..	..	..	..	..	..	..	..	..
Continued fever ..	..	..	..	..	..	..	..	..	..	..	..
Puerperal fever ..	1	..	..	..	..	1	..	..	1	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	25	1	2	8	5	9	9	2	3	5	6

TABLE IV. LOUTH RURAL DISTRICT.
Causes of, and Ages at, Death during Year 1900.

Causes of Death.	Deaths in whole District at subjoined Ages.							Deaths in Localities (at all Ages).				
	All Ages.	Under 1.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upward	Binbrook	Louth (rural)	Saltfleet	Tetney	Withern
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	7	3	2	1	1	..	..	..	3	1	2	1
Scarlet fever	2	..	..	2	..	..	..	2	..	..	..	..
Whooping-cough .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria and membranous croup	1	..	..	..	1	..	..	..	..	..	..	1
Croup .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus .. ..	..	..	..	..	..	..	..	..	..	..	..	..
{ Enteric	1	..	..	..	..	1	..	..	..	..	1	..
{ other continued .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic influenza	12	1	..	..	..	2	9	2	1	3	4	2
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	5	2	..	2	..	..	1	2	..	1	2	..
Enteritis	3	3	..	..	..	..	..	1	1	..	1	..
Puerperal fever	2	..	..	..	..	2	..	..	..	2	..	..
Erysipelas	1	..	1	..	..	..	..	..	..	..	..	1
Other septic diseases .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	15	1	..	..	3	11	..	2	3	3	3	4
Other tubercular diseases	8	..	..	2	4	2	..	..	3	3	1	1
Cancer, malignant disease	8	..	..	..	..	4	4	2	2	1	1	2
Bronchitis	21	4	3	..	..	3	11	4	2	10	4	1
Pneumonia	9	1	..	1	..	6	1	1	1	4	..	3
Pleurisy .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of Respiratory organs	9	4	1	..	..	3	1	3	..	..	4	2
Alcoholism .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of liver	1	..	..	..	..	1	..	..	1	..	..	..
Venereal diseases .. ..	..	..	..	..	..	..	..	..	..	..	..	..
Premature birth	14	14	..	..	..	..	..	1	6	3	1	3
Diseases and accidents of parturition	1	..	..	..	1	..	..	..	..	..	1	..
Heart diseases	26	..	..	..	..	8	18	3	4	7	6	6
Accidents	7	..	3	..	1	..	3	..	1	3	..	3
Suicides	1	..	..	..	..	1	..	..	..	1	..	..
Old age	39	..	..	..	..	..	39	12	4	7	8	8
All other causes	80	20	3	..	6	24	27	16	11	25	22	6
All causes	273	53	13	8	17	68	114	51	43	74	61	44